



# THE RISK OF COMMON INJURIES IN BADMINTON GAME

Dr. Kapil Sharma

Assistant Professor, Department of Physical Education, M.N.S Government College Bhiwani

## ABSTRACT

This article is devoted to the review of literature directly relevant to the game of badminton. The information available about the game under investigation is based on the secondary studies. An effort has been made to present here some important features regarding the game and injury-risk to the various parts of the body. Besides this, some preventive measures which facilitate in lowering the risk of injuries to the identified body parts and available few nutrients that can help in the healing process have been emphasized in this paper.

## FEATURES OF BADMINTON

The game used to be known as battledore and shuttlecock in the beginning. The official name of badminton which has world-wide acceptance had been taken from the name of the Duke of Beaufort's country estate in Gloucestershire, England, where the game was originated and developed (Eaton, 1989). Badminton is very popular and is one of the biggest participatory games. It was included as an Olympic Sport for the first time in Barcelona (Spain) in 1992 (Eaton, 1989).

The game of Badminton can claim to be suitable for everyone. Children, adolescents, adults, the disabled, men and women, competitive or casual players all can play it. It improves physical abilities of badminton players such as stamina, speed, strength, agility and co-ordination. It can also increase mental abilities like the power of concentration, thinking and acting. (Eaton, 1989). The benefits of playing badminton have been recognized at large scale and it is now played at sports clubs, schools, colleges, parks and community centres etc. It can be played both indoors and outdoors. Singles, doubles and mixed doubles games are played in badminton. Various types of strokes are used in the game like overhead and forehand strokes, jumps shots, smash, drop, drive, net shots etc. Due to all these movements and metabolic requirements of badminton, players eventually get injured. Especially, due to tough competitions and rigorous training most of the athletes get acute or traumatic injuries in different parts of the body. Physical immaturity, a defective technique and muscle imbalance may be some causative factors for getting injuries. (Callanta, 2006). Badminton is a game of mind, footwork and speed. Without proper warming up and specific exercises, players are mostly prone to get injuries. There are some common thermal stress injuries which are caused due to poor hydration and nutritional practices (Callanta, 2006).

## Injury Risk in Various Body parts and Their Preventive Measures

There are some common foot and hand body-part injuries suffered by badminton players during rigorous training periods

and tough competitive matches/tournaments. Such injuries and their possible measures to prevent them are also given:

Plantar Fasciitis, Bunions, ganglion cysts, metatarsalgia sprain, fallen arches and torn ligaments etc. are related to foot injuries. By strengthening foot muscles and by wearing proper footwear, these injuries can be prevented. Lateral and medial sprains are concerned with ankle injuries. It can be avoided by strengthening calf and by performing balancing exercises. Strained calf and tibial stress fracture are leg injuries. These can be prevented by strengthening and stretching calf. Hamstring, hip pointer, bursitis and groin strains are related with thigh, hip and pelvis injuries. These can be avoided by strengthening quadriceps and adductors and doing some flexible training. Knees injuries are like patella-femoral syndrome, torn meniscus, torn ligaments, patellar and quadriceps tendonitis etc. To prevent these injuries, muscle balancing, hamstring, quadriceps and conditioning measures can be adopted. The above said injuries are known as lower extremities, (Callanta, 2006). Some upper extremities have been mentioned as below:

Wrist and hand injuries are ganglion cysts, tendonitis and fractures due to falls in the badminton court. By strengthening wrists and by learning proper way to fall and roll, such injuries can be avoided. Medial and lateral epicondylitis and forearm fractures are related with elbow and forearm injuries. By strengthening and stretching forearm muscles, these can be prevented. Upper arm injuries are like strained biceps and triceps brachii. They can be avoided by balancing strength between biceps and triceps brachii. Painful arc syndrome, bursitis, tendonitis, biceps and muscle rupture are associated with shoulder injuries and can be prevented by strengthening rotator cuff and biceps brachii and by stretching shoulder. Few injuries are concerned with neck, lower back and abdominal muscles like neck muscle strains, disc injury to the cervical vertebrae, low back pains and strains of abdominal muscles. The preventive measures for these injuries can be adopted by strengthening neck muscles, core muscles, abdominal and back muscles. The form of proper exercises and core training

methods are also needed.

There are both types injuries in badminton such as common injuries and chronic injuries. Some chronic injuries are osteoarthritis, connective tissue inflammations and plain chronic pain. There are also some common injuries in badminton like sprains, dislocations, bruises or bleeding etc. after getting hit by the racquet or shuttlecock. There is even possibilities of fractures in various body parts while playing badminton.

### Healing Through Nutrients:

The concept of using nutrients as therapeutic agents is a new and attractive process of healing the injuries of various body parts which are affected during the game of badminton. Protein is very important nutrient. When protein is taken in the diet, the body converts it into aminoacids and these aminoacids are the basic building blocks for the repairing the tissues such as collagen, elastin, hormones and enzymes. Vitamin- A plays a role of an antioxidant defence system. It is useful in the healing of wounds and it can reduce the chances of infection. Vitamin E is one of the major antioxidants. It can remove the bad effects of free radicals on tissues. It protects the tissues and avoids the delaying process of healing the body of badminton athletes. Calcium plays very important role in bone development. Due to sports injuries, there is bone loss which is associated with athletic amenorrhea. Calcium intake is required especially for young female athletes. Magnesium is also required in the prevention of bone loss disorder. B-Complex Vitamins have the quality to improve healing. Vitamin B6 have positive effect on reducing a disorder that affects the wrist. This type of disorder (Carpal Tunnel Syndrome) could be career- threatening for badminton players. These B-Complex Vitamins have pain relieving properties. Vitamin C is also useful in healing wounds. It prevents degenerative joint conditions such as osteoarthritis. Irons deficiency decreases performance levels of athletes due to anaemia. Iron is advisable to players especially when inflammation accompanies injuries. It plays a role in the formation of free radicals which can aggravate the inflammation. (Sattwam Physiotherapy and fitness Rehabilitation centre, 2022).

Despite all these healing measures, some general nutritional guidelines should also be suggested for proper healing of injuries in badminton such as:

- Mega doses of Vitamin C (4000 mg per day) may be taken. A multivitamin tablet per day may be taken.
- Calories in diet may be increased if injury is severe.
- Processed food should be avoided. Fruits, vegetables and whole grains should be included in the diet. Consumption of too much fat items may also be avoided (Fahlstrom, 2023).

Badminton players if followed the above mentioned healing and nutritional measures properly, the injury risk may be reduced upto the minimum level.

### REFERENCES

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